REMARKS

Claims 1 and 12 have been amended into their original form. Therefore, no new subject matter is believed to have been added by these amendments. No claims have been cancelled or added.

The Examiner has objected to claims 1 and 12 for improper antecedent basis. The claims no longer recite the language objected to by the Examiner. Withdrawal of the objection is respectfully requested. Furthermore, Applicants believe that amended claim 1 and 12 overcomes the drawing objection.

Claims 1-19 are rejected under 35 U.S.C. §112, first paragraph as containing subject matter which was not described in the specification. The claims no longer recite the language objected to by the Examiner. Withdrawal of the rejection is respectfully requested.

Claims 1, 2, 6-13, and 17 stand rejected under 35 U.S.C. §102(b) for anticipation by United States Patent No. 6,738,100 to Hampapur et al. (hereinafter "the Hampapur patent").

Dependent claims 3 and 14-16 stand rejected under 35 U.S.C. §103(a) for obviousness over the Hampapur patent in view of United States Patent No. 6,539,418 to Schneider et al. (hereinafter "the Schneider patent"). Dependent claims 4-5, 18-19 stand rejected under 35 U.S.C. §103(a) for obviousness over the Hampapur patent in view of the Schneider patent and United States Patent No. 7,308,147 to Sano.

The Prior Art

The Hampapur patent discloses a system for detecting scene changes in a video stream in order to establish meta data describing the video. This is done by detecting differences based on frames. More specifically, the Hampapur patent retrieves information for a first frame of a digital video data stream for a software display control program. Then the Hampapur patent retrieves information for a second frame of a digital video data stream from a software display control program. A scene change is detected if the second frame differs from the first frame by more than a predetermined threshold amount.

The Hampapur patent utilizes two processes for detecting a scene change, namely, the chromatic difference measurement and the structural difference measurement. The Hampapur patent describes the specifics of the chromatic difference measurement process at column 8, lines 50-61. More specifically, the chromatic difference measurement

process computes the intensity histogram of a reference frame and then computes an intensity of an active frame before computing the difference between the two. Similarly, the Hampapur patent utilizes structural difference measurement techniques to compute the structural distance between two frames. As described in the Hampapur patent at column 9, lines 12-60, the Hampapur patent compares structural differences between the reference and active frames by measuring either their edge orientation histograms or their moment sets and then comparing the two.

The Present Invention

Amended independent claim 1 of the present invention is a method of capturing a new video frame from a target computer to permit the updating of a remote computer with the video output of the target computer. The new video frame comprises a series of new frame pixels to be captured, the series include an initial new frame pixel to be captured and a final new frame pixel to be captured; the new frame pixels to be captured being represented in a video signal from the target computer, the method comprising the steps of, beginning with the initial new frame pixel: (A) receiving for comparison a new frame pixel from the series; (B) comparing the new frame pixel to a corresponding reference frame pixel; and (C) if the final new frame pixel has not been captured, repeating steps A and B for the next new frame pixel in the series. Independent claim 12 is directed to a system having steps in accordance with independent claim 1.

The Hampapur patent does not anticipate the present invention

The present invention provides for receiving a new frame pixel and comparison of the new frame pixel to a corresponding reference frame pixel before a next new frame pixel is received. This process is iterated pixel by pixel as opposed to taking the entire new frame and then comparing the pixels to a reference frame. The Hampapur patent fails to disclose any pixel by pixel comparison. Applicants respectfully disagree that the cited text, namely column 7, lines 8-40 describe the features of the present invention, nothing in this citation or in Figure 5 of the Hampapur patent discloses pixels, or the way in which pixels are treated while successive frames are being compared. In contrast, the cited passage describes the steps leading up to and including a frame comparison using chromatic difference measurements to compare an active and reference frame. The chromatic

difference measurement test, as described in the Hampapur patent, first computes the intensity histogram of a reference frame and then computes an intensity of an active frame before finally computing the difference between the two. Therefore, the Hampapur patent fails to disclose the pixel comparison of the present invention.

To the extent pixels are mentioned at all in the Hampapur patent, neither of the two mentioned tests in the Hampapur patent discloses pixel by pixel comparison. The two tests discussed, the chromatic difference measurement (see page 8, lines 31-41 of the Hampapur patent) and the structure difference measurement (see page 9, lines 1-20 of the Hampapur patent) are both frame comparison techniques. The Hampapur patent utilizes the chromatic difference measurement process first and based on the results, it then uses structural difference measurement techniques to compute the structural distance between two frames. As described in column 9, lines 12-60, the Hampapur patent compares structural difference between the reference and active frames by measuring either their edge orientation histograms or their moment sets and then comparing the two. Furthermore, with regards to inherency, for a reference to serve as an anticipation when the reference is silent about the asserted inherent characteristic, such a gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill in the art. However, in the Hampapur patent, there is no missing extrinsic evidence, since the two cited comparison techniques of the Hampapur patent are known frame comparison techniques. Therefore pixel comparison is not inherent in the Hampapur patent because no gap exists and it is improper to assert inherency as a means for anticipation. Therefore, the Hampapur patent fails to either disclose or anticipate the present invention.

Claim 1 is patentable over the Hampapur patent and is believed patentable over the other prior art of record. Applicants believe that the subject matter of amended independent claim 12 is not anticipated by the Hampapur patent at least for the same reasons heretofore presented with regard to claim 1. Reconsideration of the rejections of claims 1, 2, 6-13, and 17 is respectfully requested.

35 U.S.C. §103 Rejections

In light of the aforementioned amendments and arguments made with respect to the anticipation rejections under the Hampapur patent, Applicants respectfully request that the Examiner withdraw the obviousness rejections. Accordingly, reconsideration of the rejections of claims 3-5, 14-16, and 18-19 is also respectfully requested.

CONCLUSION

Based on the foregoing amendments and remarks, reconsideration of the rejections and allowance of examined claims 1-19 are respectfully requested.

Respectfully submitted,

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